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New Neotropical Rhinotragini and a new country record for Nicaragua (Coleoptera: Cerambycidae: Cerambycinae)

James E. Wappes
American Coleoptera Museum, wappes@earthlink.net

Antonio Santos-Silva
Universidade de São Paulo, toncriss@uol.com.br

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James E. Wappes
American Coleoptera Museum
8734 Paisano Pass
San Antonio, TX 78255-3523, USA

Antonio Santos-Silva
Museu de Zoologia
Universidade de São Paulo
CP 188, 90001-970
São Paulo, SP, Brazil

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James E. Wappes
American Coleoptera Museum
8734 Paisano Pass
San Antonio, TX 78255-3523, USA
wappes@earthlink.net

Antonio Santos-Silva
Museu de Zoologia
Universidade de São Paulo
CP 188, 90001-970
São Paulo, SP, Brazil
toncriss@uol.com.br

Abstract. Nine new species of Rhinotragini (Coleoptera: Cerambycidae: Cerambycinae) are described from the Neotropical region: *Odontocera galileoae* (Mexico); *Odontocera mthomasi* (Guatemala); *Ecliptoides vandenberghei* (Nicaragua); *Eclipta ricei* and *Odontocera skelleyi* (Costa Rica); *Eclipta nearnsi* (Panama); *Odontocera stangei* (Venezuela); *Chariergodes lingafelteri* and *Ischasia martinsi* (Costa Rica and Panama). *Ischasia rufina* Thomson, 1864 is formally excluded from the fauna of Costa Rica and Panama, and Nicaragua is added as a new country record for *Eclipta ficta* Bezark, Martins and Santos-Silva, 2013. Notes on *Ecliptoides monostigma* (Bates, 1869) are provided in the "Diagnosis" of *E. vandenberghei*.

Key Words. *Eclipta*, new species, *Odontocera*, new country records, taxonomy.

Introduction

The large Cerambycinae tribe Rhinotragini Thomson, 1861 is composed of almost 90 genera, which include more than 500 species (Monné 2016). The tribe is not only large in numbers but also extremely diverse, with its members differing widely in form and appearance. Many of its genera, especially the larger ones such as *Eclipta* Bates, 1873 (58 species) and *Odontocera* Audinet-Serville, 1833 (78 species), include species that have anatomical characters in disagreement with the original description of the genus. Sometimes even their physical appearance differs greatly from the type species of the genus. Thus, in general terms, much of the tribe is, or at least until very recently has been, in need of revisionary work. Fortunately, that process was started late in the 20th century with works by Giesbert and Hovore (1989), Monné and Giesbert (1992), and Giesbert (1996). Additionally, early in the 21st century we experienced an increased effort to restore order to the classification of the Rhinotragini by experienced cerambycid taxonomists including: Peñaherrera-Leiva and Tavakilian (2003, 2004), Tavakilian and Peñaherrera-Leiva (2003, 2005, 2007); Martins and Santos-Silva (2010); Martins et al. (2012a, 2012b); Santos-Silva et al. (2010, 2011, 2012, 2013); Clarke (2009a, 2009b, 2010, 2011, 2012, 2013a, 2013b, 2014a, 2014b, 2015); Clarke et al. (2011, 2012); and Carelli and Monné (2015). This effort has greatly improved species placement in the Rhinotragini, yet much remains to be done. Hence, in some instances, species described herein are provisionally placed in a genus based on similarity to species already included, even though it is recognized that such assignment is likely to change as revisionary work for the genus is done. Where this is the case, it is so indicated in the diagnosis of the species.

Materials and Methods

Specimens from the following museums and private collections were used in this study:

ACMT – American Coleoptera Museum (James E. Wappes), San Antonio, TX, USA
BMNH – The Natural History Museum, London, United Kingdom
CASC – California Academy of Sciences, San Francisco, CA, USA

DJHC – Daniel J. Heffern Collection, Houston, TX, USA
EAPZ – Escuela, Agricola Panamericana Zamorano, Honduras
EVDB – Eric van den Berghe Personal Collection, Seattle, WA, USA
FSCA – Florida State Collection of Arthropods, Gainesville, FL, USA
LGBC – Larry G. Bezark Collection, Sacramento, CA, USA
MEL – Museo Entomologico Leon (Jean Michel Maes), Nicaragua
MNHN– Muséum national d'Histoire naturelle, Paris, France
MZSP – Museu de Zoologia, Universidade de São Paulo, São Paulo, Brazil
RFMC – Roy F. Morris, II, Lakeland, FL, USA
TAMU – Texas A&M University, College Station, TX, USA

***Eclipta ricei* Wappes and Santos-Silva, n. sp.**
(Fig. 1–3)

Diagnosis. *Eclipta ricei* is similar to *Odontocera vittipennis* Bates, 1873 (a species that is misplaced in *Odontocera* Audinet-Serville, 1833 and will surely be moved out of *Odontocera* as revisionary work is done on the genus). It differs as follows: elytra lighter, with translucent area less delimited; metasternum and ventrites only partially, abundantly, finely punctate (metasternum with smooth central area and abdominal ventrites sparsely punctate centrally); metatibiae thickened apically; metatarsi about 0.25 times length of metatibiae. In *O. vittipennis* the elytra are darker, the translucent area well delimited, the entire metasternum and ventrites abundantly, finely punctate, the metatibiae is thin throughout its length, and the metatarsi are visually longer, nearly 0.40 times the length of its metatibiae. *Eclipta ricei* compares well to the original description of *Eclipta* Bates, 1873, and in physical form with the type species, *Ommata flavicollis* Bates, 1873 (now *Eclipta flavicollis*): "Legs slender; middle femora abruptly but not very broadly clavate; elytra with sides subparallel (less so in *E. flavicollis*), apex truncated," as such, is well placed in the *Eclipta*.

Description. Integument primarily black. The following lighter reddish to pale brown: anteclypeus; distal 1/3 of labrum; distal 1/3 of antennomere XI; small distinct patch on elytra each side of scutellum, indistinctly so on remainder of dorsal surface; elongate area adjacent to lateral basal 1/4 of elytra margin; basal 2/3 of metafemoral peduncle (only laterally on basal 1/3); metatarsi (except basal extreme of metatarsomere I, which is blackish, and distal 1/2 of metatarsomere V and claws, which are brown). The following dark brown: antennomeres IV–X, and basal 2/3 of XI (IV–V, somewhat darker and shining); pro- and mesofemora, dorsal and ventral distal 1/3 of peduncle, and 2/3 of lateral, distal sides; club of metafemora; ventrites dark brown (almost black laterally). Pronotum, and prothorax laterally orange (pronotum brownish on basal edge and distal 1/3). Each elytron with darker patch between lighter basal areas, somewhat translucent between apex of basal 1/3 and base of distal 1/6, suture darker, epipleura, and apex, mostly darker brown on basal 1/3.

Head. Not elongated behind eyes (posterior edge of eyes close to anterior edge of prothorax); rostrum (between apex of inferior ocular lobe and genal apex), in frontal view, 0.75 times length of lower eye lobe. Frons sparsely, moderately coarsely punctate centrally, punctures denser laterally. Central area, between clypeus and antennal tubercles, with sparse, short yellowish setae; with slightly denser setae laterally, interspersed with sparse, long setae. Vertex abundantly, coarsely punctate; with sparse, moderately long yellowish setae. Antennal tubercles sparsely, moderately finely punctate; with sparse, short yellowish setae. Labrum with transverse row of short, yellowish setae at basal 1/2; one very long seta on each side of latter; distal edge with fringe of dense, short setae. Side of mandible abundantly, coarsely, moderately punctate laterally; with moderately sparse, short setae; with sparse, very long, thick setae at base and at distal 1/2. Area beneath lower eye lobes with moderately abundant long setae. Gular region smooth, glabrous. Central area of submentum, closer to gula, sparsely, moderately coarsely punctate, with sparse, long yellow setae, punctures denser laterally; anterior half of submentum transversely striate-punctate, with sparse, long setae. Distance between upper eye lobes 0.65 times length of scape; in frontal view, distance between lower eye lobes 0.55 times length of scape. Antennae 1.2 times elytral length; nearly reaching distal 1/5 of elytra; antennomeres III–IV filiform; antennomeres

V–VII enlarged towards apex; together, antennomeres V–XI forming distinct club. Scape, pedicel, and antennomeres III–VI with long, dark, thick setae; antennal formula (ratio) based on antennomere III: scape = 0.71; pedicel = 0.25; IV = 0.64; V = 0.83; VI = 0.64; VII = 0.62; VIII = 0.50; IX = 0.47; X = 0.43; XI = 0.55.

Thorax. Prothorax sub-cylindrical, slightly longer than wide, without lateral tubercles. Pronotum coarsely reticulate, with moderately abundant, long setae. Prothorax coarsely punctate laterally (somewhat reticulate towards pronotum, partially confluent towards prosternum); with sparse, short setae. Prosternum abundantly, coarsely punctate; transversally sulcate near head; with sparse, long yellowish setae. Prosternal process narrowed centrally, truncate at apex; with abundant, long yellowish setae. Metasternum moderately abundantly, finely punctate laterally, sparsely towards center; sides with moderately abundant, short setae, sparsely interspersed with long setae; disc with sparse, long setae. Scutellum deeply, widely sulcate on distal 1/2; with abundant, short setae (mainly at lateral distal half). **Elytra**. Elongate, narrowed from base to apex, dehiscent from basal 1/3 to apex; abundantly, coarsely punctate (punctures distinctly sparser on translucent area); apex sub-truncate. **Legs**. Femora clavate; metafemoral peduncle distinctly long; apex of metafemora reaching middle of fifth abdominal segment. Metatibiae distinctly thicker towards apex. Metatarsi thick; metatarsomere I 1.5 times longer than II–III together.

Abdomen. Ventrites sparsely, moderately finely punctate (punctures denser and, pubescent laterally); surface with sparse, moderately short setae throughout.

Dimensions in mm (holotype female). Total length (from mandibular apex to abdominal apex), 11.5; prothorax: length, 1.8; anterior width, 1.2; posterior width, 1.4; humeral width, 1.7; elytral length, 5.6.

Type material. Holotype female from COSTA RICA, *Guanacaste*: Monteverde ("Cordillera de Tilaran"), 10.III.1991, M. E. Rice col. (FSCA).

Etymology. Named for Marlin Rice, collector of the holotype and long time enthusiastic student of the cerambycidae.

***Eclipta nearnsi* Wappes and Santos-Silva, n. sp.**
(Fig. 4–6)

Diagnosis. *Eclipta nearnsi* is similar to *Eclipta quadrispinosa* (Gounelle, 1913), but in addition to differences in coloration (*E. nearnsi* primarily black with pronotum, prothorax and significant portions of the frons bright yellow, versus mostly piceous to gray with reddish orange pronotum in *E. quadrispinosa*) it differs as follows: elytra expanded laterally from distal half to near apices; abdomen punctate, pubescent laterally and with short setae centrally. According to Gounelle (1913), *E. quadrispinosa* is (translation): "elytra…, posteriorly very slightly gradually attenuate…; abdomen…sparsely punctate, shining, subglabrous…"

Eclipta nearnsi with its elytra non-dehiscent and distinctly wider near the apex than basally, is not a prototypical *Eclipta* and is only provisionally placed here.

Description. Integument primarily black with the following yellow: frons, except for narrow band adjacent to clypeus and small circular dark macula along sides of base; ventral surface of head; pronotum, except for narrow fascia on each side of basal edge and along lateral edge adjacent to mesosternum; small apical areas in procoxal cavity; and small basal rings on antennomeres VIII–XI. Elytra black, basally transitioning to brown, gray-brown and finally grayish yellow near and including the apices with narrow brown vitta on each elytron extending from dark basal area distally until fading away at apical 1/5.

Head. Not elongated behind eyes (posterior edge of eyes close to anterior edge of prothorax); rostrum (between apex of inferior ocular lobe and genal apex), in frontal view, 0.9 times length of lower eye lobe. Frons abundantly, coarsely, confluently punctate; with sparse, short yellowish setae. Frontal area between lower eye lobes abundantly, coarsely punctate; with sparse, short setae. Ocular carina distinct. Vertex, and antennal tubercles (from base to near apex) abundantly, coarsely, confluently

punctate; with sparse, short setae. Clypeus sparsely, finely punctate; with sparse, short setae and 1 long seta on each side. Labrum with sparse, moderately long setae; distal edge with fringe of short setae. Area under lower eye lobes sparsely, coarsely punctate; with sparse, long setae. Outer side of mandible with moderately sparse, short setae, sparsely interspersed with long setae. Gula smooth, shining and glabrous. Submentum punctate-striate; with sparse, short setae, sparsely interspersed with long setae. Distance between upper eye lobes 0.70 times length of scape; in frontal view distance between lower eye lobes 0.55 times length of scape. Antennae 0.86 times as long as elytra; slightly surpassing middle of elytra; antennomere III filiform; antennomeres IV–VI slightly enlarged towards apex, with distal outer angle rounded; antennomeres VII–X enlarged towards apex, with distal outer angle dentate; antennal club not very distinct; scape, pedicel, and antennomeres III–VI with long, dark, thick setae; antennal formula (ratio) based on antennomere III: scape = 0.71; pedicel = 0.27; IV = 0.46; V = 0.61; VI = 0.53; VII = 0.51; VIII = 0.46; IX = 0.44; X = 0.41; XI = 0.53.

Thorax. Prothorax subcylindrical, as long as wide, without lateral tubercles. Pronotum reticulate, with sparse, short dark setae. Prothorax reticulate laterally; with sparse, short yellowish setae, basally pubescent. Prosternum abundantly, coarsely punctate on basal 1/2, with moderately abundant, short setae, sparsely interspersed with slightly longer brownish setae; distal 1/2 smooth, shining and glabrous. Prosternal process narrowed centrally, truncate at apex. Scutellum pubescent, centrally sulcate at distal half. Metepisterna abundantly, coarsely punctate; with short setae. Metasternum abundantly, coarsely punctate laterally, punctures gradually finer towards metasternal suture (somewhat microsculptured along central area); microsculptured anteriorly and laterally, with abundant, short setae, interspersed with moderately long setae, distinctly sparser towards center. **Elytra**. Lateral margins convergent from humerus towards middle, divergent towards distal 1/6, convergent towards apex; apex broadly truncate, with small tooth at each angle; abundantly, coarsely punctate; with sparse, short setae on basal 1/3. **Legs**. Femora clavate; metafemur distinctly long; apex of metafemora reaches base of fifth abdominal segment. Metatarsi slender; metatarsomere I 1.2 times longer than II–III together.

Abdomen. Ventrites abundantly, moderately, finely punctate (mainly laterally); pubescent laterally; with moderately abundant, short setae centrally; apex of ventrite V wide, sinuate, without projections.

Dimensions in mm (holotype female). Total length (from mandibular apex to abdominal apex), 9.7; prothorax: length, 1.8; anterior width, 1.3; posterior width, 1.6; humeral width, 2.0; elytral length, 7.1.

Type material. Holotype female from PANAMA, *Panama*: Cerro Jefe (2200'), 25.V-01.VI.1992, J. E. Wappes col. (FSCA).

Etymology. Named for Eugenio H. Nearns, a good friend, talented webmaster, researcher and writer of numerous taxonomic papers on the Onciderini which have greatly increased our knowledge of the tribe, genera and species, and Manager of the Purdue Entomological Research Collection.

Odontocera galileoae Wappes and Santos-Silva, n. sp.

(Fig. 7–9)

Diagnosis. *Odontocera galileoae* is similar to *O. tibialis* Zajciw, 1971, but differs as follows: pronotum without black maculae; antennomeres not distinctly annulate; peduncle of metafemora and metatibiae unicolorous. In *O. tibialis* the pronotum often has a black macula on each side, the antennomeres are distinctly annulate, and the peduncle of metafemora and metatibiae are bicolorous. It is also similar to *O. clara* Bates, 1873, differing as follows: head not entirely black; legs orange; lateral elytral vitta not reaching humerus. In *O. clara* the head is entirely black, the legs are primarily black, and the lateral elytral vitta is complete to the humerus.

Description. Integument pale orange. The following black: dorsal surface of head surrounding upper eye lobes; small macula close to and under lower eye lobes; distal 1/3 of mandibles; basal 1/2 of elytral suture. The following brownish: antennal tubercles; distal 1/2 of elytral suture; lateral vitta on elytra, from apex forward to and ending at basal 1/5; irregular area on each side of ventrites I, II, and IV,

nearly all of III (angle of light source can cause ventrites to appear completely brown); tarsal claws. Antennomeres V–XI distally darker.

Head. Not elongated behind eyes (posterior edge of eyes close to anterior edge of prothorax); rostrum (between apex of lower eye lobes and genal apex), in frontal view, 0.45 times length of lower eye lobe. Frons yellowish white pubescent centrally, obscuring integument, distinctly sparser laterally, not obscuring integument. Vertex densely, moderately finely punctate; with abundant, short yellowish white setae, not obscuring integument, interspersed with sparse, long setae laterally. Antennal tubercles almost smooth, with sparse, short yellowish white setae, almost glabrous centrally. Clypeus with yellowish white pubescence medially at base, almost glabrous laterally and apically. Labrum with short pubescence, with sparse long setae on disc, one thick, long seta laterally; distal edge with brush of short setae. Outer surface of mandible with sparse, short setae, sparsely interspersed with long setae. Area behind and under lower eye lobes with sparse, long setae. Gena abundantly, moderately coarsely punctate on basal 2/3, smooth on distal 1/3; basal 2/3 with sparse, short setae, glabrous towards apex. Gula shining and glabrous. Submentum coarsely striate-punctate laterally, almost smooth centrally and distally; with sparse, short setae, distinctly longer laterally. Distance between upper eye lobes, in frontal view, 0.60 times length of scape; distance between lower eye lobes 0.15 times length of scape. Antennae 1.3 times elytral length; reaching base of distal 1/10 of elytra; antennomeres III–IV filiform; antennomere V enlarged towards apex, with outer angle distally rounded; antennomeres VI–X distinctly enlarged towards apex, with outer angle distally dentate; antennomeres VI–XI forming club, not distinctly delimited; scape, pedicel, and antennomeres III–VI with moderately long, dark, thick setae; antennal formula (ratio) based on antennomere III: scape = 0.65; pedicel = 0.20; IV = 0.57; V = 0.89; VI = 0.84; VII = 0.75; VIII = 0.65; IX = 0.60; X = 0.49; XI = 0.58.

Thorax. Prothorax subcylindrical, longer than wide, widest near middle, without lateral tubercles. Pronotum with longitudinal callosity on anterior 1/2 of disk, not reaching anterior edge; abundantly, coarsely punctate, mainly laterally, callosity smooth; basal depression with dense, short white setae; anterior 1/3 with abundant, short white setae (centrally sparser); remaining surface with sparse, moderately long, setae. Prothorax abundantly, coarsely punctate laterally; with dense, short white setae, except for subglabrous area close to anterior edge. Basal 2/3 of prosternum coarsely, striate-punctate, with moderately dense, short white pubescence, sparsely interspersed with long setae; distal 1/3 shining, striate, with sparse, short setae, mainly basally. Prosternal process distinctly narrowed centrally and broadly enlarged towards truncate apex. Metepisterna and metasternum with dense yellowish pubescence sparsely interspersed with long setae, except for glabrous area around distal 1/2 of metasternal suture. Scutellum with dense, yellowish white pubescence. **Elytra**. Narrowed from base to apex, slightly dehiscent along suture in distal half; abundantly, moderately coarsely punctate on basal 1/5 and laterally; translucent area sparsely, coarsely, shallowly punctate; with sparse long setae on basal 1/5, gradually sparser and shorter towards apex. **Legs**. Femora clavate; metafemoral peduncle distinctly long; apex of metafemora reaching abdominal apex. Metatarsomere I about as long as II–III together.

Abdomen. Ventrites with moderately short setae, denser laterally, sparsely interspersed with long setae; ventrite V elevated laterally and depressed centrally on distal 2/3.

Variation. Vertex black, with an orange diamond-shaped area between antennal tubercles; submentum black, except for narrow anterior band; submentum and nearly all gula black; basal 2/3 of mandibles brown; elytral suture, lateral and distal band of elytra black; base of metepisterna black; ventrites I–IV nearly all brown.

Dimensions in mm (male). Total length (from mandibular apex to abdominal apex), 12.20–12.40; prothorax: length, 2.30; anterior width, 1.60; posterior width, 1.75–1.80; humeral width, 2.10–2.15; elytral length, 7.60–7.90. The smallest dimensions are those of the holotype.

Type material. Holotype male from MEXICO, *Guerrero*: Hwy 200, 21 km N Ixtapa, 17–22.VII.1985, J. E. Wappes col. (FSCA). Paratypes – 2 males, same data as holotype (ACMT, MZSP).

Etymology. We are pleased to name this species to honor and recognize our good friend and colleague, Maria Helena Mainieri Galileo for her numerous contributions to the knowledge of New World Ceram-

bycidae. Publishing alone, or most often with her close friend Ubirajara Martins, she has researched and written more than 125 papers on Cerambycidae taxonomy. Her exceptional work continues today.

***Odontocera stangei* Wappes and Santos-Silva, n. sp.**
(Fig. 10–12)

Diagnosis. *Odontocera stangei* is similar to *O. armipes* Zajciw, 1963, but differs as follows: pronotum without clearly defined longitudinal black bands; each elytron with dark, oblique macula along base from humerus to suture. In *O. armipes* the pronotum has three longitudinal dark bands, and the elytra lack the dark, oblique macula. It differs from species with similar elytral patterns by the pronotum lacking areas of distinct, dense pubescence [*O. auropilosa* Tippmann, 1953; *O. barnouini* Peñaherrera-Leiva and Tavakilian, 2003; *O. beneluzi* Peñaherrera-Leiva and Tavakilian, 2003; *O. dice* Newman, 1841; *O. fasciata* (Olivier, 1795); *O. ornaticollis* Bates, 1870; *O. zeteki* Fisher, 1930], or by the distinct coloring of the pronotal integument (without large lighter areas) [*O. buscki* Fisher, 1930; *O. compressipes* White, 1855; *O. darlingtoni* Fisher, 1930; *O. hirundipennis* Zajciw, 1962].

Description. Integument primarily yellow orange with the following areas dark-brown or piceous to partially black: vertex; apex of mandibles; scape; pedicel; broadly triangular area under lower eye lobes, prolonged towards ventral surface on anterior margin of submentum; distal extreme of genae; pronotum, except for reddish-brown subreniform area on each side of basal 1/2, and oblique yellowish vitta laterally on basal 1/3 of prothorax; transverse vitta, interconnected to the dark area of pronotum, prolonged and narrowed towards ventral surface crossing the base of prosternal process; oblique vitta from humerus to elytral suture, extending laterally along the basal third of each elytron. The following lighter brown: antennomeres III–XI (opaque); gula, except for narrow longitudinal, yellowish central band; area of humerus interconnected to the oblique dark brown vitta, apex and elytral suture up to base of middle 1/3; lateral of mesosternum close to sides of mesosternal process; anterior margin of metepisterna; margin of metepisterna close to metasternum, from apex of basal 1/4 to apex; base of pro- and mesotibiae; parts of ventrites I–II; ventrites III–V. The following yellowish: frons and anterior 1/3 of prosternum.

Head. Not elongated behind eyes (posterior edge of eyes close to anterior edge of prothorax); rostrum (between apex of inferior ocular lobe and genal apex), in frontal view, 0.8 times length of lower eye lobe. Frons obliquely striate between inferior edge of lower eye lobes and clypeus; coarsely, shallowly punctate between lower eye lobes; with vitta of short setae from base of clypeus to base of antennal tubercle laterally, along inner edge of inferior ocular lobe; remaining surface glabrous. Vertex abundantly, coarsely punctate; with sparse, short setae. Clypeus with very short yellowish setae; with very long, dark, thick setae laterally. Labrum with sparse short setae, sparsely interspersed with long setae (with very long, thick setae laterally). Outer surface of mandible with sparse, short setae on base; one long seta on basal 1/3, and another on distal 1/3. Area behind lower eye lobes, near eye, fringed with dense yellowish white setae, sparsely interspersed with long setae; area under lower eye lobes with sparse, long brownish setae. Genae transversely striate near eyes, sparsely, finely punctate on remaining surface, except for narrow, shallow distal band; with sparse, short setae. Gula smooth, shining and glabrous. Submentum sparsely, coarsely punctate; with sparse, short setae. Distance between upper eye lobes 0.55 times length of scape; in frontal view, distance between lower lobes 0.50 times length of scape. Antennae 0.75 times elytral length; reaching near middle of elytra; antennomeres III–IV slightly enlarged towards apex, with outer angle distally rounded; antennomeres V–X distinctly enlarged towards apex, with outer angle dentate distally; antennal club not distinctly delimited; scape, pedicel, and antennomeres III–VI with moderately long, dark, thick setae; antennal formula (ratio) based on antennomere III: scape = 1.00; pedicel = 0.28; IV = 0.66; V = 0.71; VI = 0.71; VII = 0.71; VIII = 0.63; IX = 0.54; X = 0.48; XI = 0.57.

Thorax. Prothorax subcylindrical, slightly longer than wide, widest forward of middle, lacking lateral tubercles. Pronotum centrally elevated; callosities indistinct; coarsely, reticulate punctate; basal depression with short, rather inconspicuous setae; entire surface with moderately sparse, long, dark thick setae. Prothorax coarsely, reticulate punctate laterally (less so towards head); with sparse, mod-

erately long setae, inconspicuously pubescent on basal half. Prosternum abundantly, coarsely, shallowly punctate and pubescent on basal half; distal 1/2 shining and somewhat glabrous. Prosternal process distinctly narrowed centrally, broadly enlarged towards apex; apex widely emarginate and truncate. Metepisterna abundantly, coarsely punctate on central 1/2; pubescent near elytra; remaining surface with sparse, short setae, interspersed with sparse, long setae on basal 1/3. Metasternum moderately sparsely, coarsely punctate laterally; with sparse, moderately long setae; small area near mesocoxae pubescent. Scutellum pubescent. **Elytra**. Narrowed from base to apex, dehiscent along suture for distal 1/2; abundantly, coarsely punctate on base and laterally; translucent area gradually depressed from base to apex, sparsely, finely, shallowly punctate; with sparse, moderately long setae on base, gradually sparser and shorter towards apex. **Legs**. Femora clavate; metafemora slightly longer than mesofemora; apex of metafemora reaching distal 1/3 of third abdominal segment. Metatarsomere I 1.1 times longer than II–III together.

Abdomen. Ventrites abundantly, moderately, finely punctate, mainly III and IV; pubescent laterally; remaining surface with moderately abundant, short setae, sparsely interspersed, with long setae.

Variation. Frons reddish-brown; ventrites I–II brown; ventrites III–V dark-brown; long setae of metepisterna present on entire surface.

Dimensions in mm (female). Total length (from mandibular apex to abdominal apex), 11.8–12.3; prothorax: length, 2.0–2.1; anterior width, 1.8–1.9; posterior width, 1.7–1.8; humeral width, 2.2–2.5; elytral length, 8.0–8.2. The largest dimensions are those of holotype.

Type material. Holotype female from VENEZUELA, *Aragua*: Rancho Grande, 4.VII.1988, L. Stange & C. Porter col. (FSCA). Paratype female, same data as holotype (ACMT).

Etymology. This species is named for Lionel Stange, collector of the holotype and long time FSCA taxonomist and researcher (now retired). An avid collector, Lionel, has traveled extensively throughout tropical America with his friend Charley Porter, collecting a wide variety of insects. In the process they contributed many thousands of specimens to the FSCA collection including hundreds of tropical cerambycidae.

Odontocera mthomasi Wappes and Santos-Silva, n. sp.

(Fig. 13–15)

Diagnosis. *Odontocera mthomasi* is similar to *Odontocera vittipennis* Bates, 1873, but differs as follows (females): body slender; distance between inferior ocular lobes larger (in frontal view 0.75 times length of one lobe); metasternum and ventrites not entirely pubescent. In *O. vittipennis* the body is wider, the distance between inferior ocular lobes is smaller (in frontal view 0.55 times length of one lobe), and the metasternum and ventrites are entirely pubescent.

Description. Integument primarily black. Pronotum reddish, except for three small brown spots near base (central one narrower and less conspicuous); prothorax, in part, reddish laterally; elytra with light area from near base to near apex with basal 1/6, translucent; metatibiae with reddish spot dorsally on basal 1/4; metatarsi whitish yellow, except dorsal and lateral base of metatarsomere I (black), distal 1/2 of metatarsomere V (brown), and claws (black).

Head. Not elongated behind eyes (posterior edge of eyes close to anterior edge of prothorax); rostrum (between apex of lower eye lobe and genal apex), in frontal view, 0.5 times length of inferior ocular lobe. Frons abundantly, moderately finely punctate; with sparse, short yellowish white setae, denser on band close to lower eye lobes. Vertex abundantly, moderately coarsely punctate (punctures denser than on frons); with sparse, short yellowish white setae. Antennal tubercles sparsely, finely punctate, with smooth areas intermixed; with sparse, short yellowish white setae. Clypeus abundantly, finely punctate centrally, with moderately sparse, short yellowish white setae, interspersed with sparse, long setae; lateral surface smooth and glabrous. Labrum with transverse row of short, yellowish setae on

basal 1/2, sparsely interspersed with long setae; distal 1/2 shining and glabrous; posterior edge with fringe of short, yellowish white setae. Outer surface of mandibles with sparse, short setae, sparsely interspersed with long setae (mainly on basal and distal 1/3). Area behind lower eye lobes with fringe of sparse, long yellowish white setae close to eye. Genae sparsely, finely punctate; with sparse, short yellowish white setae. Gula almost smooth centrally at base, striate, sparsely punctate towards submentum; transversely striate on base laterally; and anteriorly, with sparse, long yellowish white setae laterally. Submentum transversely striate-punctate, except only with sparse punctures centrally; with sparse, long yellowish white setae. Distance between upper eye lobes 0.6 times length of scape; in frontal view, distance between lower eye lobes 0.6 times length of scape. Antennae1.3 times elytral length; reaching about apex of second abdominal segment; antennomeres III–V filiform; antennomere VI slightly enlarged towards apex; antennomeres VII–VIII more distinctly enlarged towards apex, with rounded outer angle distally; antennomeres IX–XI thick; antennal club not distinct; scape, pedicel, and antennomeres III–VI with moderately long, dark, thick setae; antennal formula (ratio) based on antennomere III: scape = 0.71; pedicel = 0.26; IV = 0.66; V = 0.92; VI = 0.71; VII = 0.73; VIII = 058; IX = 0.55; X = 0.50; XI = 0.58.

Thorax. Prothorax subcylindrical, longer than wide, widest at middle, without lateral tubercles. Pronotum with one lightly marked, narrow central callosity near base and a small rounded pair, one each side of central callosity; densely, coarsely, confluently punctate; with sparse, short yellowish white setae, sparsely interspersed with long setae. Prothorax sparsely, moderately coarsely punctate laterally (slightly denser on part of basal area); with sparse, short yellowish white setae. Basal 3/4 of prosternum abundantly, coarsely punctate, with abundant, moderately long whitish setae; anterior 1/4 sparsely, moderately finely punctate, with sparse, long setae. Prosternal process narrowed centrally, broadly enlarged towards truncate apex; with short setae, interspersed with long to very long setae. Metepisterna with abundant, short, whitish setae, sparsely interspersed with long setae, more so anteriorly. Metasternum with abundant, whitish setae laterally, interspersed with sparse, long setae; with sparse, moderately long, whitish setae in central area. Scutellum pubescent. **Elytra**. Narrowed from base to apex, dehiscent along suture on distal 1/2; abundantly, moderately coarsely punctate on base and laterally; translucent area sparsely, coarsely, shallowly punctate; with sparse, long setae on base, gradually sparser and shorter towards apex. **Legs**. Femora clavate; metafemur distinctly longer than mesofemur; apex of metafemora reaching middle of fifth abdominal segment. Metatarsomere I 1.65 times longer than II–III together.

Abdomen. Ventrites with abundant, short whitish setae laterally, sparsely interspersed with long setae; remaining surface with moderately abundant, short and long whitish setae.

Dimensions in mm (female). Total length (from mandibular apex to abdominal apex), 12.9; prothorax: length, 2.1; anterior width, 1.4; posterior width, 1.6; humeral width, 2.0; elytral length, 6.4.

Type material. Holotype female from GUATEMALA, *Zacapa*: near San Lorenzo (4–6000'), 13 IV, 1990, J. E. Wappes col. (FSCA).

Etymology. Named to recognize Michael C. Thomas, long-time friend, and former Chief Entomologist of the Florida State Collection of Arthropods (now retired), for his many contributions to our knowledge of the Laemophloeidae and for his welcome hospitality to hundreds of visitors during his 20 plus years as FSCA's entomological leader.

Odontocera skelleyi Wappes and Santos-Silva, n. sp.

(Fig. 16–18)

Diagnosis. *Odontocera skelleyi* is similar to *O. albicans* (Klug, 1825) and O. *leucothea* Bates, 1873, but differs from both by the elytra notably narrower towards apex. It also differs from *O. leucothea* by the yellowish white area of antennae covering 1/2 of antennomere VI and all of antennomeres VII–VIII (in *O. leucothea*, about 1/2 of antennomere V and all of antennomeres VI–VII), by the whitish pronotal pubescence not prolonged towards center (prolonged in *O. leucothea*), and by the dorsal surface of pro-

and mesotibiae darker (mostly yellowish in *O. leucothea*). Lastly, *O. skelleyi* is from Costa Rica while the other two species are from southeastern Brazil.

Description. Integument black; about 1/2 of antennomere VI and all of antennomeres VII–VIII yellowish white; anteclypeus reddish; basal 1/3 of labrum brownish, remaining surface reddish; elytra with yellowish white spot laterally, near humerus; pro- and mesofemora reddish (peduncle of mesofemora somewhat yellowish); metafemoral peduncle yellowish, with a narrow black ring close to club; metafemoral club reddish; protibiae dorsally dark, with reddish lateral and ventral sides; mesotibiae with dorsal side, most of lateral sides and all of ventral side reddish; metatibiae yellowish, with ventral side of distal 1/4 brownish; metatarsomeres I–II yellowish; metatarsomeres III–V reddish (more brownish towards apex of V and claws); ventrites reddish. Pubescence and setae golden (may appear silvery depending on angle of light source).

Head. Not elongated behind eyes (posterior edge of eyes close to anterior edge of prothorax); rostrum (between apex of lower eye lobe and genal apex), in frontal view, as long as length of lower eye lobe. Frons sparsely, coarsely punctate towards clypeus, denser close to lower eye lobes; pubescence forming wide band around lower eye lobes from base of antennal tubercles to near gena; with sparse, short setae around coronal suture and close to clypeus centrally. Vertex moderately abundantly, finely punctate, except for smooth area close to coronal suture; with sparse, short setae. Antennal tubercles abundantly, moderately finely punctate on frontal side, punctures sparse on remaining surface; with sparse, short setae, principally towards vertex. Clypeus sparsely, moderately finely punctate; with sparse, short setae; close to frons, one very long seta on each side. Labrum sparsely, finely punctate, apex smooth; with sparse, long setae; distal edge fringed with short setae. Outer surface of mandibles finely, sparsely punctate; with sparse, short setae, sparsely interspersed with long, fine setae. Area behind lower eye lobes, close to eye, with wide fringe of dense pubescence, sparsely interspersed with long setae. Genae, towards eyes, abundantly, moderately coarsely punctate, almost smooth close to apex; with sparse, short setae. Gula smooth, shining and glabrous. Submentum distinctly transversely striate; with sparse, long setae laterally, gradually shorter towards center. Distance between upper eye lobes 0.5 times length of scape; in frontal view, distance between lower eye lobes 0.8 times length of scape. Antennae 1.2 times elytral length; nearly reaching base of third abdominal segment; antennomere III filiform; antennomeres IV–V slightly enlarged towards apex; antennomeres VI–X distinctly enlarged towards apex, serrate; scape sparsely, moderately coarsely punctate, with sparse, short setae, sparsely interspersed with long setae; pedicel and antennomeres III–VI with long, thick setae on inner side ventrally; antennal formula (ratio) based on antennomere III: scape = 0.52; pedicel = 0.17; IV = 0.44; V = 0.68; VI = 0.64; VII = 0.59; VIII = 0.59; IX = 0.46; X = 0.43; XI = 0.46.

Thorax. Prothorax subcylindrical, longer than wide, widest near middle, without distinct lateral tubercles. Pronotum with three tubercles on disk: a sub-rounded one on each side and an elongate less conspicuous one centrally; distinct, somewhat rectangular depression, with posterior margin emarginate, at base; basal and apical 1/4 distinctly less elevated than central area; depression densely, very finely punctate; remaining surface sparsely, coarsely punctate; dense pubescence, sparsely interspersed with long setae, obscuring surface of depression and apical and basal 1/4; remaining surface with sparse, short setae, sparsely interspersed with long setae. Prothorax with oblique, distinct callosity laterally; dense pubescence obscuring integument, except for sub-glabrous area of callosity interconnected to the sub-glabrous area of pronotum, and areas close to anterior and posterior margin (enlarged towards ventral surface); sub-glabrous moderately coarsely punctate below callosity. Prosternum with densely pubescent basal transverse depression on each side of middle, transversely sulcate and finely punctate at anterior 1/4, finely transversely striate between the latter and basal 1/2; remaining surface with sparse, long setae. Prosternal process basal 1/2 notably narrower, distinctly enlarged in distal 1/2; with moderately abundant, short setae (not obscuring integument) and long setae sparsely interspersed. Metepisterna with large glabrous area from base to slightly after middle with remaining surface densely pubescent. Metasternum sparsely, moderately coarsely punctate, except for dense, finely punctate triangular area close to metacoxae, and smooth, narrow area around metasternal suture; densely pubescent, except for large trapezoid region on each side of distal 1/2; trapezoid region with sparse, short setae, sparsely interspersed with long setae. Scutellum densely pubescent. **Elytra**. Notably narrowed, dehiscent along suture; sparsely, finely punctate; basal 1/5 with sparse moderately long setae; apex narrowly rounded.

Legs. Femora clavate; metafemur distinctly longer than mesofemur; apex of metafemora surpassing abdominal apex. Metatarsomere I 1.4 times longer than II–III together.

Abdomen. Ventrites sparsely, finely punctate, with sparse, short setae (somewhat longer laterally).

Dimensions in mm (female). Total length (from mandibular apex to abdominal apex), 15.7; prothorax: length, 3.0; anterior width, 2.1; posterior width, 2.3; humeral width, 3.0; elytral length, 9.7.

Type material. Holotype female from COSTA RICA, *Puntarenas*: 6 km S Santa Elena, 6-7.VI.1983, J. E. Wappes col. (FSCA).

Etymology. Named for our good friend, FSCA Chief of Entomology, Managing Editor of Insecta Mundi, and collector extraordinaire in recognition of his many published contributions to our knowledge of the Erotylidae and Aphodiinae. Dr. Paul is an individual who always finds time to help when you need it. For this reason alone we are pleased to honor him with a "Skelley Bycid."

***Chariergodes lingafelteri* Wappes and Santos-Silva, n. sp.**
(Fig. 19–21)

Ommata (*Chariergodes*) *turrialbae* Giesbert, 1991: 388 (part; remarks).

Diagnosis. *Chariergodes* Zajciw (1963) is a small genus containing just four species. Three of these, *C. anceps* (Melzer, 1927), *C. carinicollis* (Zajciw, 1963), and *C. flava* (Zajciw, 1963) are primarily orange species, with or without dark appendages, and recorded only from southeastern Brazil. The fourth is *C. turrialbae* (Giesbert, 1991) from Costa Rica. *Chariergodes lingafelteri* can be readily separated from the latter by the basal fifth of elytra reddish, and the surface punctation in this area finer, shallower and more widely separated than those on the rest of the elytra (coarser, deeper and most contiguous). In *C. turrialbae* the elytra is uniformly metallic green with its surface punctation similar throughout (moderately fine, shallow and most not contiguous).

According to Giesbert (1991): "An additional small series of specimens, provisionally assignable to this species, have been seen from 35 km E. Cañitas, Panamá prov., PANAMA, June 7, 1984 (R. Penrose, F. Hovore). These are not considered paratypes because they differ from the typical *O. turrialbae* by the dull reddish basal quarter of the elytra, a color pattern resembling that of *O. beltiana* Bates." Although, these specimens should be in either the Frank Hovore collection, now housed at the CASC, or the Richard Penrose collection, now housed at the CA Department of Food and Agriculture, they have not been located in either collection. Nonetheless, based on Giesberts' comments they are very likely examples of the new species.

Description. Integument shining metallic green (antennomeres gradually opaque towards apex of antenna), with slightly violaceous reflexions, except for basal 1/5, or slightly more, of elytra reddish, palpi brown on basal 2/3, yellowish on distal 1/3.

Head. Not elongated behind eyes (posterior edge of eyes close to anterior edge of prothorax); rostrum (between apex of lower eye lobe and genal apex), in frontal view, shorter than length of lower eye. Frons coarsely, confluently punctate from clypeus to antennal tubercles; narrow carina on each side from clypeus to base of antennal tubercles; area bordering coronal suture elevated; with moderately sparse, short setae, slightly denser close to the eye margin and around coronal suture. Vertex coarsely, confluently punctate; with sparse, short setae, sparsely interspersed with long setae. Antennal tubercles coarsely punctate on front portion of basal 1/2, moderately finely punctate on rear portion of basal 1/2, gradually finer towards apex; apex narrowly smooth. Clypeus abundantly, coarsely punctate on basal 2/3, smooth on distal 1/3; punctate area with sparse, short setae and one long seta on each side. Outer surface of mandibles sparsely, finely punctate; with sparse, short setae, sparsely interspersed with long setae. Area behind lower eye lobes striate-punctate; with sparse, long setae close to eye. Genae abundantly, moderately finely punctate, gradually smoother towards apex; with sparse, short setae. Gula smooth, shining and glabrous. Submentum obliquely striate; sparsely, moderately finely punctate;

with sparse, long setae. Distance between upper eye lobes 0.6 times length of scape; distance, in frontal view, between lower eye lobes 0.75 times length of scape. Antennae 2.0 times elytral length; surpassing elytral apices at basal third of antennomere VIII; scape sparsely, finely punctate, distinctly sparser towards apex; antennal formula (ratio) based on antennomere III: scape = 0.66; pedicel = 0.18; IV = 0.88; V = 1.22; VI = 1.46; VII = 1.40; VIII = 1.04; IX = 1.02; X = 0.82; XI = 0.82.

Thorax. Prothorax subcylindrical, longer than wide; sides rounded, enlarged near middle. Pronotum longitudinally carinate centrally; densely, coarsely punctate; longitudinal carina transversely striate from middle to basal 1/4; basal 1/5 pubescent, interspersed with long setae; remaining surface with moderately abundant, long setae. Sides of prothorax abundantly, coarsely punctate on superior 1/2, sparser, finely punctate on inferior 1/2; pubescent, sparsely interspersed with long setae. Prosternum abundantly, coarsely punctate on basal 1/2; anterior 1/2 transversely striate, with sparse, coarse punctures; abundant, long setae on basal 1/2, gradually sparser towards anterior margin. Prosternal process narrowed at middle, notably enlarged triangularly towards apex (triangular area concave). Metepisterna moderately abundantly, coarsely punctate; with abundant, short setae, interspersed with long setae. Metasternum abundantly, coarsely punctate laterally, gradually finer and sparser towards middle; with moderately abundant, short setae, interspersed with long setae. Scutellum pubescent. **Elytra**. Each elytron with longitudinal lateral carina, from near humeri to about distal 1/5, indistinct on basal reddish area; reddish area moderately finely punctate, with moderately abundant, long setae; metallic green portion more coarsely punctate, with sparse short setae, sparsely interspersed with long setae (gradually sparser towards apex); apex subrounded, with narrow pubescent area. **Legs**. Slender, femora with moderately abundant, short setae, interspersed with long setae. Protibiae with dense pubescence on lateral and ventral sides, with moderately long setae dorsally; meso- and metatibiae with long, thick setae.

Abdomen. Ventrites microsculptured, sparsely, finely punctate, except for smooth area at apex of ventrites I–IV; with abundant, short pubescence (not obscuring integument), interspersed with sparse, long setae.

Dimensions in mm (female). Total length (from mandibular apex to abdominal apex), 10.7; prothorax: length, 1.9; anterior width, 1.3; posterior width, 1.4; humeral width, 1.8; elytral length, 6.3.

Type material. Holotype female from PANAMA, *Panama*: 25 KM SE Cañita, 6-7.V.1999, Wappes & Morris col. (FSCA). Paratypes (5) – PANAMA, *Panama*: Bayano Dist., 1 female, 28-41 km E. Canitas, 24.V.1984, F. Hovore coll. (CASC); 1 female, 3.VI.1984, F. Hovore coll. (CASC); Ipeti, 1 female, 11.V.1985, F. Hovore coll. (CASC); COSTA RICA, *Guanacaste*: Santa Rosa N. P., 2 females, 10.VI.2002, F. Hovore coll. (1 ACMT, 1 MZSP).

Etymology. Named for Steven W. Lingafelter (USDA, Plant Protection and Quarantine, Douglas, Arizona), a valued friend, serious student of and prolific publisher on all things Cerambycidae, who takes on projects, big or small, with the same competitive zest doing an outstanding job on each.

Ischasia martinsi Wappes and Santos-Silva, n. sp.

(Fig. 22–24)

Ischasia rufina Thompson, 1864; Giesbert 1991: 393.

Diagnosis. Giesbert (1991) recorded *I. rufina* Thomson, 1864 from Costa Rica and Panama, writing: "*Ischasia rufina* is very close to the often sympatric *I. nevermanni* Fisher, which may be distinguished by the black head, wider and somewhat arcuate elytral sutural dehiscence, narrowly rounded apex of the terminal abdominal sternite in both sexes, and the lack of silvery pubescence on the scutellum or underside."

Ischasia martinsi differs from *I. nevermanni* by the features pointed out by Giesbert (1991), by the elytral apex distinctly wider (notably narrow in *I. nevermanni*), and by the peduncle of metafemora mostly dark (totally reddish in *I. nevermanni*).

From *I. rufina* it differs as follows: elytral apex with black spot; ventrites II–IV with wide lateral patch of shining whitish-gray pubescence. In *I. rufina* the elytra are totally reddish or have a black macula laterally, along distal 1/2, that may or may not involve the apex (in this latter case, the macula is always very narrow at apex), and the shining whitish-gray lateral pubescence on ventrites is very narrow and elongate, or absent.

An examination of the Giesbert specimens (now housed at the FSCA) indicates his description of *I. rufina* sensu Giesbert (1991) corresponds to *Ischasia martinsi* and as such the specimens he studied are included here as paratypical specimens. Thusly, *I. rufina* should be excluded from the known fauna of Costa Rica and Panama.

Description. Integument orangish, except for: parts of mandibles dark brown; pedicel dark brown; surface of antennomere III mostly dark brown; dorsal and inner side of antennomeres IV–XI mostly dark brown; apex of elytra dark brown to black; peduncle of metafemora mostly dark brown; pro- and mesotibiae dark brown on base and outer surface; metatibiae mostly dark brown, with reddish areas; pro- and mesotarsi reddish brown, with tarsomere V darker; metatarsi brown, with tarsomere V dark brown.

Head. Not elongated behind eyes (posterior edge of eyes close to anterior edge of prothorax); rostrum (between apex of lower eye lobe and genal apex), in frontal view, about as long as length of lower eye lobe. Frons coarsely, confluently punctate; with narrow carina from clypeus to base of antennal tubercles; with sparse, short setae, slightly denser close to eyes. Vertex abundantly, coarsely punctate (punctures smaller than on frons); with sparse, short setae. Coronal suture distinct from clypeus to anterior edge of prothorax. Antennal tubercles abundantly, coarsely punctate on front of basal 1/2, smooth on remaining surface. Clypeus abundantly, moderately coarsely punctate, except for smooth distal portion; with sparse, short setae on punctate area, with a long setae on each side. Outer surface of mandibles coarsely, confluently punctate on base, sparsely, moderately finely punctate towards dorsal surface and apex; with short setae on outer base, and a few long setae on side. Area behind lower eye lobes, near area of interconnection of lobes, abundantly, finely punctate, remaining surface smooth towards prothorax, except for narrow abundantly punctate area, and row of sparse long setae, close to eye. Genae abundantly, coarsely punctate, except for smooth area close to apex; with sparse, short setae. Gula smooth, shining and glabrous. Submentum transversely striate, mainly towards anterior edge; abundantly, moderately coarsely punctate; with moderately sparse, long setae. Distance between upper eye lobes 0.70 times length of scape; in frontal view, distance between lower eye lobes 0.65 times length of scape. Antennae 2.3 times elytral length; reaching elytral apex at distal 1/3 of antennomere IX; scape coarsely punctate on basal 1/2, gradually smoother towards apex, with sparse, long, thick dark setae; pedicel with, thick dark setae on ventral side; antennomeres III–V with sparse, long, thick dark setae on ventral side; antennomeres VI–X with moderately long, thick dark setae near apex (shorter towards distal antennomeres); antennal formula (ratio) based on antennomere III: scape = 0.75; pedicel = 0.33; IV = 0.48; V = 0.73; VI = 0.63; VII = 0.55; VIII = 0.48; IX = 0.43; X = 0.38; XI = 0.60.

Thorax. Prothorax subcylindrical, longer than wide; lateral sides divergent from anterior edge to about basal 1/4, then narrowed towards base. Pronotum densely, coarsely, deeply punctate, punctures distinctly shallower centrally close to anterior edge; disc pubescent on base and anterior 1/4; surface with moderately sparse, long setae throughout. Sides of prothorax coarsely, deeply punctate (punctures sparser towards anterior edge), except for smooth area on inferior half close to anterior margin; with sparse, short setae. Prosternum densely, moderately coarsely punctate on basal 2/3, smooth, shining and glabrous on anterior 1/3; punctate area pubescent, sparsely interspersed with long setae. Prosternal process narrowed centrally, broadly, triangularly expanded towards apex. Mesepimeron and mesepisternum with gray pubescence. Metepisterna sparsely, finely punctate; anterior 1/2 with moderately sparse, long setae, except for narrow, transverse whitish-gray pubescent band; posterior 1/2 with large, sub-triangular whitish gray pubescent area. Metasternum abundantly, coarsely punctate laterally, on basal 1/2, sparsely, finely punctate on remaining surface; pubescent around mesocoxal cavities; with sparse, long setae throughout. Scutellum, whitish gray pubescent. **Elytra**. Short, reaching only basal 1/3 of first abdominal segment; dehiscent along suture from about middle to apex; densely, coarsely punctate (punctures somewhat confluent near apex); apex widely rounded; with moderately abundant,

long setae on basal 1/2, sparser, distinctly shorter setae towards apex. **Legs**. Metafemora almost attaining apex of abdomen.

Abdomen. Ventrites shining, very sparsely, finely punctate; ventrites II–III with large spot of whitish-gray pubescence laterally; ventrite IV with conspicuous, whitish-gray pubescence laterally; remaining surface of ventrites with short and long sparse setae.

Dimensions in mm (female/male). Total length (from mandibular apex to abdominal apex), 8.00–10.70/8.20–10.20; prothorax: length, 1.50–2.20/1.60–1.80; anterior width, 1.00–1.40/1.10–1.25; posterior width, 1.00–1.60/1.10–1.35; humeral width, 1.40–2.10/1.50–1.70; elytral length, 2.20–3.10/2.20–2.70.-

Type material. Holotype female from PANAMA, *Panama*: 13-18 km N El Llano, 29.V-3.VI.1983, Wappes col. (MZSP). Paratypes (26) – PANAMA, *Panama*: Cerro Azul near McReynolds Finca, 1 female, 20-21.V.1999, Wappes & Morris col., (ACMT); Cerro Azul, microndas, 1 female, 20/V/1999, Morris/Wappes (RFMC); Cerro Campana (2100'), 1 female, 26.V-3.VI.1981, E. Giesbert col. (FSCA); 1 male, 1.VI.1983, E. Giesbert col. (ACMT); 1 female, 18-19.V.1984, E. Giesbert col. (FSCA); Cerro Jefe (2800'), 1 male, 1 female, 14.V.1984, E. Giesbert col. (FSCA); 10 km N El Llano (1400'), 1 female, 28.V-3.VI.1984 (FSCA); 10-13 km N El Llano, 4 females (FSCA), 1 female (ACMT), 1 female (MZSP), 3-5.VI.1982, E. Giesbert col.; 7-10 km N El Llano, 1 female, 4 males (FSCA), 1 male (MZSP), 14-22.V.1993, E. Giesbert col.; 2 males, 21-30.IV.1995, E. Giesbert col. (FSCA). *Colon*: Fort Sherman, 1 female, 31.V-1.VI.1981, E. Giesbert col. (FSCA). COSTA RICA, *Cartago*: Turrialba (CATIE), 2 males, 28-31.V.1987, E. Giesbert col. (FSCA). *Guanacaste*: Maritza Sta. (ACG; 1800'), 1 male, 14-16.V.1996, E. Giesbert col. (FSCA).

Remark. This is one of the Rhinotragine species where sexes can be readily separated by the placement and size of the lower eye lobes. In the males they are very large and nearly contiguous in front, while in females they are widely separated (Fig. 22) and no more than 2/3 as large.

Etymology. Named to honor Ubirajara (Bira) R. Martins (now deceased) who is remembered as a great friend, an immensely productive, indefatigable worker, and the leading New World Cerambycidae authority of his time.

Ecliptoides vandenberghei Wappes and Santos-Silva, n. sp.

(Fig. 25–34)

Diagnosis. *Ecliptoides vandenberghei*, compared to congeners recorded from Central America, is most similar to *E. monostigma* (Bates, 1869). It differs mainly by the longer elytra, about 2.7 times pronotal length, while in *E. monostigma* it is about 2.4 times pronotal length. The presence or absence of a central dark macula on the pronotum is a variable character in both species.

The exact identity of *E. monostigma* is confused, as the specimen figured by Bates (1880) does not agree with his original description regarding the shape of its pronotal fascia (the dark macula is not vitta-shaped), and the color of its femoral club, which is mostly dark. According to the original description (translated): "thorax cylindrical, coarsely, densely punctate, with central black band, narrowed posteriorly… metafemora distinctly black on apex". When describing the species, Bates (1869) indicated he had a single female from Chontales (Nicaragua). Consequently, the specimen figured in Bates (1880) is not a type of the species and may or may not be his *E. monostigma*. Later, Bates (1872) wrote: "*Agaone monostigma*, Bates, Trans. Ent. Soc. 1869, p. 384.–Two examples", indicating he obtained a second specimen after the original description. In Bezark (2017) there are photographs of two specimens from the BMNH collection, identified as *E. monostigma*. The specimen on the top left (numbered 17684), is apparently the specimen figured by Bates (1880), while the specimen on the top right (number 20019) agrees well with the description of the holotype, and is from the type locality of the holotype (Chontales) and may be the holotype. Usually, specimens belonging to the former Bates collection are deposited in MNHN, through René Oberthür purchase. However, according to Gérard L. Tavakilian (personal communication) the holotype was not found in the MNHN collection. The Thomas Belt collection (collector of the holotype) is currently housed in the BMNH. Consequently, it is very probable that the holotype

of *Agaone monostigma* is deposited there. Belt (1874) himself suggested that the specimens collected by him in Chontales remained in his private collection: "My entomological collections were much more complete than my collection of birds, especially those of butterflies and beetles….I collected about 300 different species ["Longicorns"], and Mr. H. W. Bates has enumerated 242 of these in a paper "On the Longicorn Coleoptera of Chontales, Nicaragua," published in the "Transactions of the Entomological Society for 1872." *Ecliptoides monostigma* was originally described in *Agaone* Pascoe, 1859 (Bates 1869: 384). However, in Bates (1873: 31 and 38) it appears in two different genera, without explanation: *Ommata* (*Eclipta*) *monostigma*; *Odontocera monostigma*. Although, *Odontocera* is characterized by the existence of a translucent elytral area, which is not a character described by Bates (1869), it may be present in the specimen figured by Bates (1880). Adding to the confusion is the fact that Bates (1880: 43) mentioned the species as *Odontocera monostigma*, then as *Ommata monostigma* on Plate V; as *Odontocera monostigma* in the index (page 519); and on page viii (list of plates) it appears as *Odontocera monostigma*, but with his note: "*Ommata monostigma* on the Plate." Until the holotype surfaces the true identity of *E. monostigma* Bates (1869) remains uncertain.

Males of *Ecliptoides vandenberghei* are similar to *E. vargasi* Clarke, 2009, and *E. titoi* Clarke, 2009. They differ from both species primarily by the ventral side of metathorax and abdomen mostly black (orange in the Clarke species), and by the orange area on elytra being distinctly smaller (larger in these species, especially in *E. titoi*). They also differ from *E. vargasi* by the distinctly abundant and recumbent elytral pubescence (in *E. vargasi*, "sparser, semirecumbent pubescence on elytra" — Clarke 2009a), mesotibia lighter only on ventral side of base (lighter on entire basal third in *E. vargasi*), distance between lower eye lobes equal to half of diameter of antennomere III (equal to diameter of antennomere III in *E. vargasi*). They differ from *E. titoi* by the entirely dark antennomere III (with light basal ring in *E. titoi*), scape entirely black (yellowish and orange in *E. titoi*), sides of basal third of elytra entirely black or with small, slightly distinct dark reddish-brown area (with large yellowish area), elytra densely pubescent throughout (in *E. titoi*, "with moderately dense, recumbent, short pubescence, becoming denser towards apex" — Clarke 2009a), mesotibia lighter only on ventral side of base (lighter on entire basal half in *E. titoi*), tarsi black (mostly yellow in *E. titoi). Ecliptoides vandenberghei* is also similar to *E. pilosipes* (Peñaherrera-Leiva and Tavakilian, 2004) from French Guiana and Brazil (Pará), but differs by the pale yellow longitudinal band of the elytra not distinctly expanded anteriorly towards humeri (expanded in *E. pilosipes*) and by the distinctly dense band of pubescence close to elytral suture (sparse in *E. pilosipes*).

Description. Female (Fig. 25–28). Head, pro- and mesothorax orange (except for faint narrow reddish brown anterior margin of pronotum); mandibles black; peduncle of femora and month parts yellowish, except for dark brown maxillary palpomere IV; scape and pedicel black; antennomeres III–XI dark brown, distal antennomeres gradually lighter, except for narrow, basal, orange annulation on antennomeres IV–VI; metasternum, metepisterna black; ventrite V dark brown; sides of pro- and mesofemoral club, ventrites I–IV (except for dark brown distal margin of I–III) mostly yellow to orange brown; pro- and mesofemoral club apically yellow orange transitioning to brown, darker towards apex; tibiae dark brown, protibiae and narrow basal ring of metatibiae ventrally orange; tarsi dark brown; each elytron with longitudinal pale yellow fascia, from base to near apex, gradually narrowed and less distinct distally (not notably wider at base or expanded towards humeri); remaining surface of elytra black.

Head. Not elongated behind eyes (posterior edge of eyes close to the anterior edge of prothorax); rostrum (between apex of lower eye lobe and genal apex), in frontal view, 0.7 times length of lower eye lobe. Frons abundantly, moderately coarsely punctate; with sparse, short setae. Vertex abundantly, moderately finely punctate; with sparse, short setae, interspersed with long setae. Coronal suture distinct from clypeus to area between antennal tubercles. Antennal tubercles moderately coarsely punctate at base, smooth on remaining surface. Clypeus sparsely, and moderately, coarsely punctate at base, smoother towards apex; with sparse, short setae on punctate area, interspersed laterally with long setae. Basal 1/2 of outer surface of mandibles moderately, coarsely punctate, with sparse, long setae. Area behind lower eye lobes abundantly, moderately coarsely punctate close to eye, smooth towards prothorax; with row of sparse, long setae close to eye. Genae abundantly, moderately finely punctate, except for smooth area close to apex. Gula smooth, shining and glabrous. Submentum transversely striate; sparsely, moderately finely punctate; with moderately sparse, short setae. Distance between

upper eye lobes 0.65 times length of scape; distance, in frontal view, between lower eye lobes 0.45 times length of scape. Antennae 1.3 times elytral length; reaching about distal 1/7 of elytra and distal 1/3 of second abdominal segment; pedicel, antennomeres III–VI with long, dark, thick setae on ventral side; VI–X with long, dark, thick setae near apex; antennal formula (ratio) based on antennomere III: scape = 0.82; pedicel = 0.23; IV = 0.67; V = 0.94; VI = 0.71; VII = 0.67; VIII = 0.55; IX = 0.53; X = 0.45; XI = 0.68.

Thorax. Prothorax subcylindrical, longer than wide; sides divergent at basal third, subparallel towards anterior 1/5, then convergent towards anterior edge. Pronotum abundantly, coarsely punctate (somewhat reticulate), smooth on narrow, anterior reddish brown band; with moderately abundant, short setae, interspersed with moderately abundant, long setae. Sides of prothorax very sparsely, coarsely punctate, except for smooth area at inferior 1/2 close to anterior margin; with sparse, short setae. Prosternum densely, coarsely punctate on basal 1/2, smooth, shining and glabrous on anterior 1/2; punctate area pubescent, interspersed with moderately long setae. Prosternal process centrally narrowed, broadly, triangularly expanded towards apex. Metepisterna pubescent, interspersed with moderately abundant, long setae. Metasternum laterally and anteriorly, abundantly, moderately finely punctate, pubescent with sparsely, interspersed long setae; remaining surface sparsely, finely punctate, with sparse, long setae. **Elytra**. Moderately punctate; area close to suture with wide pubescent band nearly obscuring surface punctation underneath , sparsely interspersed with long setae on basal 1/2; remaining surface with sparse, short setae (slightly longer towards base); dehiscent along suture from about distal 1/3 to apex; apex slightly obliquely truncate, with outer angle acutely produced. **Legs**. Femora (mainly on club) and tibiae (mainly meso- and metatibiae) with sparse, long setae; metafemora nearly attaining middle of fifth abdominal segment.

Abdomen. Ventrites sparsely, finely punctate (punctures denser towards sides); with sparse, short setae (somewhat pubescent laterally), sparsely interspersed with long setae on distal 1/2 of ventrite IV and on ventrite V.

Male (Fig. 29–34). Antenna 1.4 times elytral length, nearly reaching distal third of abdominal segment II. Lower eye lobes contiguous (distance between them about half the diameter of antennomere III; antennomeres IV–X with distinct yellowish annulations on base (wider toward X, primarily after VI). Pronotum orange with wide central black macula, from basal 1/9 to distal margin, their sides straight, convergent on basal 1/5, distinctly widened, rounded at about next third, straight, divergent from apex of widened area to near apex, straight toward apex: with narrow, transverse dark band from apex of area, with sides divergent to harp-shaped, slightly oblique black macula (mostly placed on sides of prothorax, with inferior area distinctly wider). Prosternum with small, subelliptical black macula on each side of midlength. Base of mesosternum and entire ventral side of metathorax and abdomen black. Sides on basal third of elytra entirely black. Ventral side of base of mesotibiae reddish-brown: base of metatibiae reddish-brown. Abdomen much narrower and longer than females (Fig. 32); ventrite V centrally depressed toward apex, which is subtruncate.

Female paratypes variation. Pronotal disc (Fig. 28) with sub-cordiform or elongated brown spot; anterior narrow band of pronotum orangish; ventrites I–IV reddish brown; ventrite V dark brown; antennomeres IV–VI without basal orange annulation; metafemoral club with sides of basal 1/2 reddish brown.

Male paratypes variation. Basal yellow annulations on antennomeres IX–X reduced: pronotum mostly black (Fig. 32), with harp-shaped macula not separated (Fig. 33); distal sides of prothorax mostly black, fused with distal area of harp-shaped macula and with black macula covering nearly all prosternum: prosternum entirely orange: mesepisternum and mesepimeron black; sides of basal third of elytra with small, slightly distinct dark reddish-brown area.

Dimensions in mm (male/female). Total length (from mandibular apex to abdominal apex), 6.50–7.35/6.80–7.00; prothorax: length, 1.15–1.25/1.20–1.25; anterior width, 0.60–0.95/0.75–0.85; posterior width, 0.65–1.00/0.85–0.90; humeral width, 1.05–1.20/1.10–1.15; elytral length, 3.00–3.40/3.20–3.40. The largest dimensions of females are those of the holotype.

Type material. Holotype female from NICARAGUA, *Nueva Segovia*: Cerro Jesus (1250 m; on flowers of *Mastichodendron capiri* - Sapotaceae), 14.V.2012, D. Heffern & E. van den Berghe col. (TAMU). Paratype – 1 female, same data as holotype (EVDB); 2 females, same data as holotype except (13°58'N 86°10'W; 1,300 m; blooming tree), 7-13.VI.2015, J. Wappes, R. Morris col. (ACMT, RFMC); same data as holotype except (El. 1,100-1,200 m, net bagging blossoms of *Croton reflexifolius* Kunth),12-15.V.2016, E. van den Berghe col., 21 males (m), 4 females (f): (8 m, 1f ACMT; 4m, 1 f DJHC; 1 m, 1 f EAPZ; 2 m EVDB; 1 m FSCA; 1 m MEL; 2 m, 1 f MZSP; 2 m RFMC). COSTA RICA, *Limon*: 5 km ESE Puerto Viejo de Talamanca, 2 females, 17.VI.1989, F. T. Hovore col. (CASC, LGBC).

Etymology. Named for Eric van den Berghe, Director, Zamorano Biodiversity Center, Zamorano Agricultural University (Escuela Agricola Panamericana = EAPZ), near Tegucigalpa, Honduras and one of the collectors of the holotype (with Dan Heffern) who so kindly hosted Roy Morris and the first author on a successful 2015 trip to Honduras and Nicaragua to find additional specimens of this species. Eric subsequently collected a nice series of the species in 2016 (also from the type locality) that included males, allowing us to add their description to the paper.

New country record

***Eclipta ficta* Bezark, Martins and Santos-Silva, 2013** (Fig. 35): NICARAGUA, *Nuevo Segovia*: Cerro Jesus (13°58'N / 86°10'W; 1,300 m; Ex: Blooming tree), 7-13.VI.2015, J. E. Wappes and R. F. Morris col. (ACMT).

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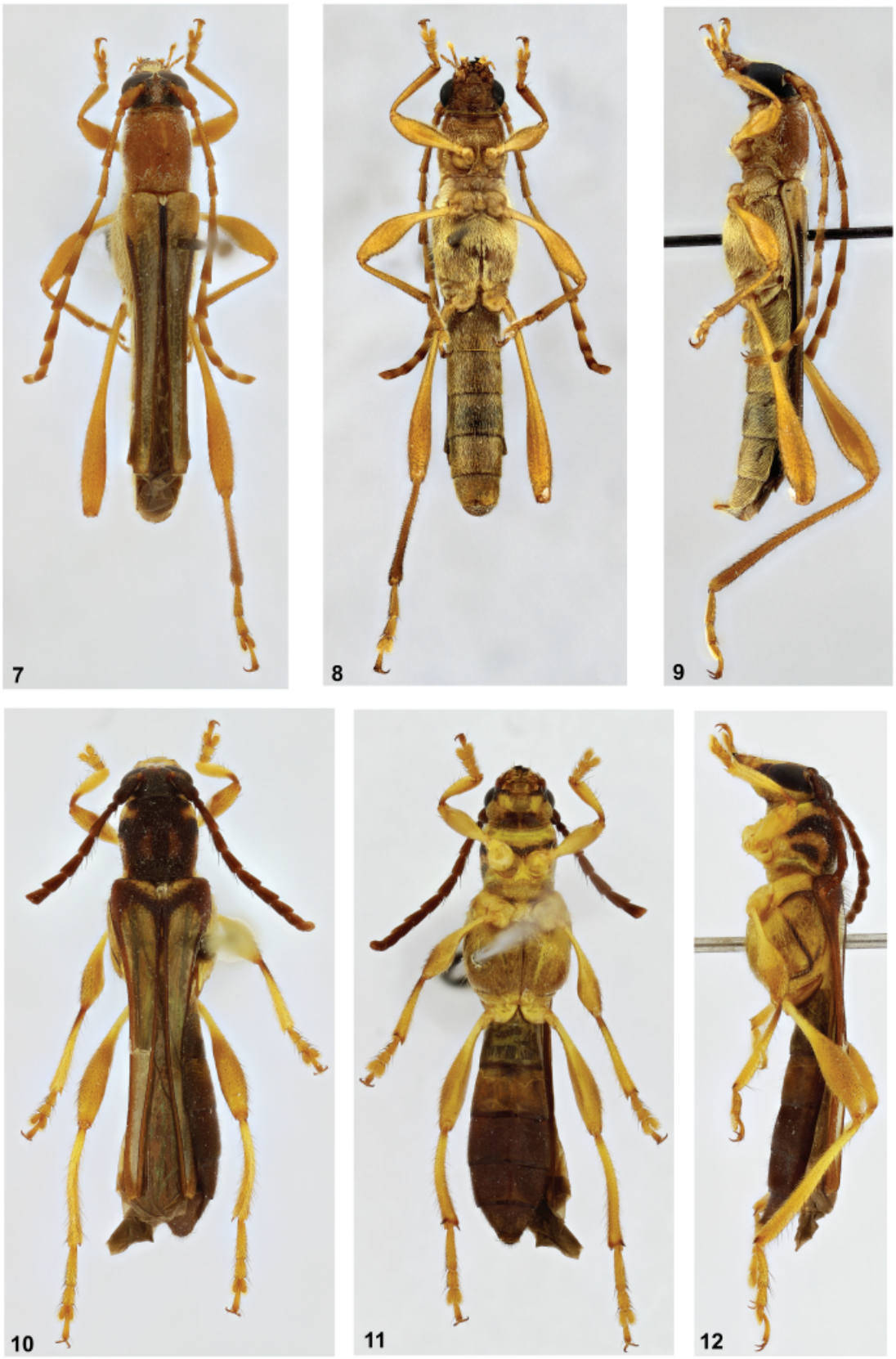
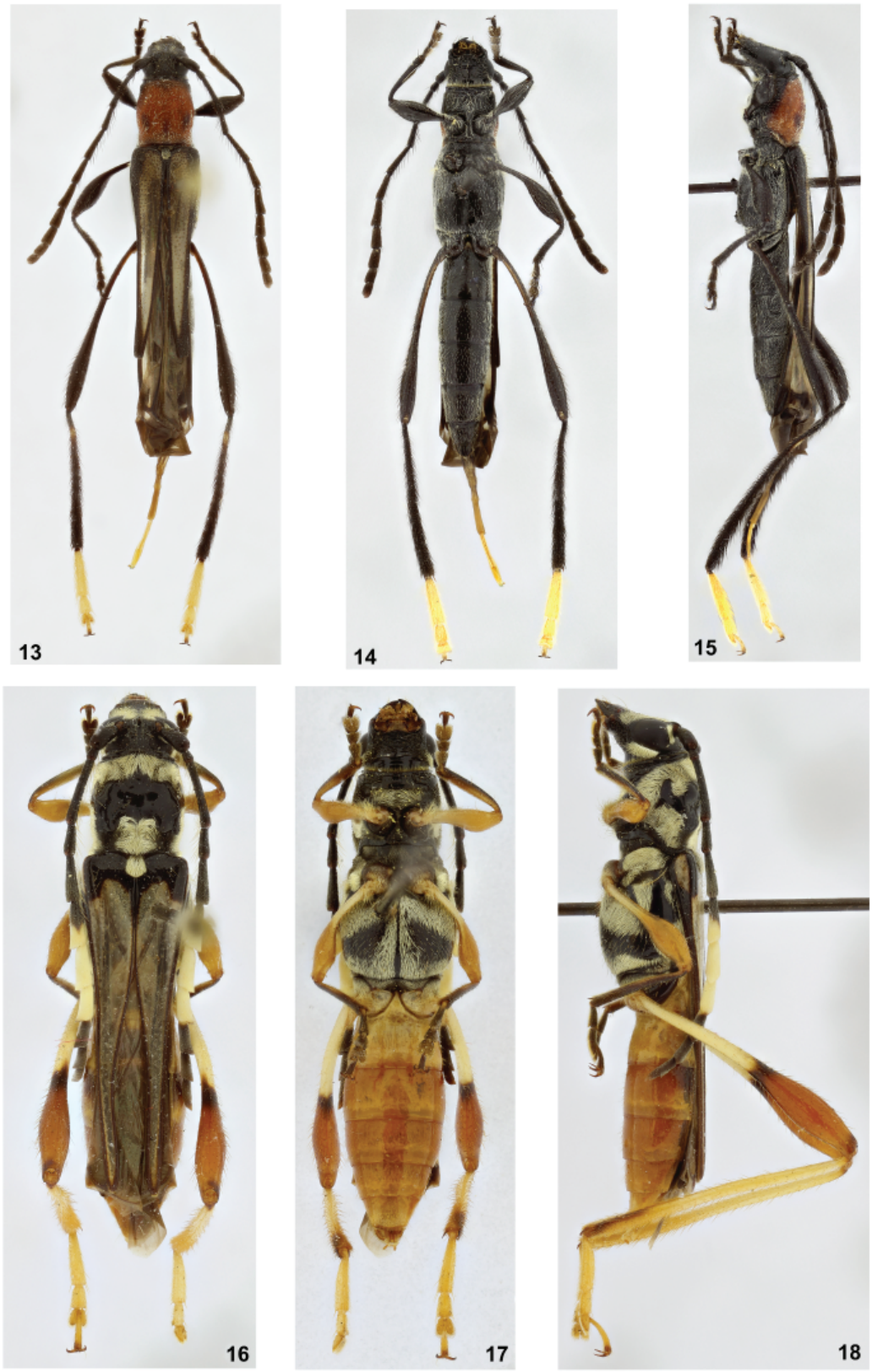
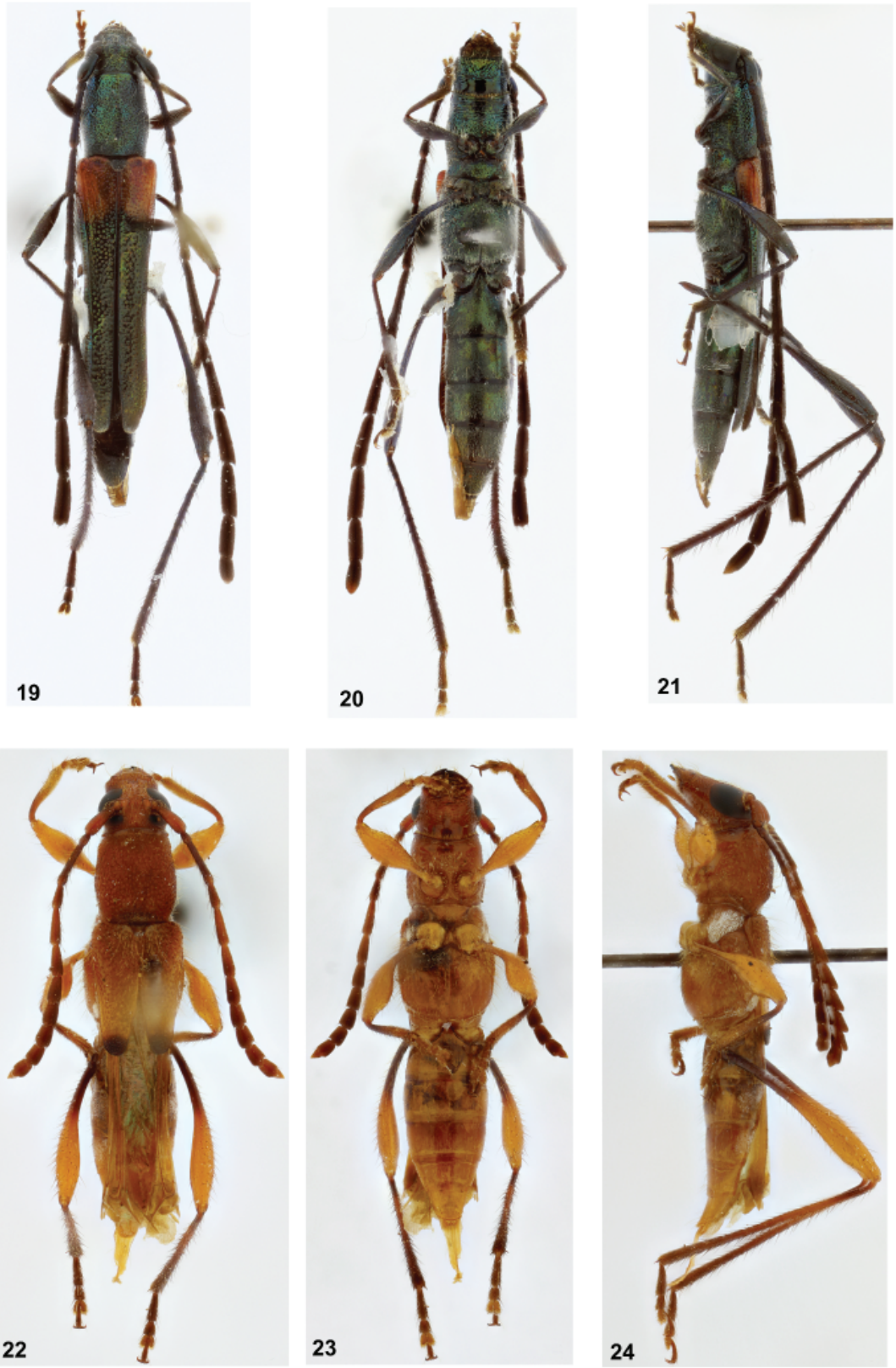
Figures 1–6. *Eclipta* spp. **1–3.** *Eclipta ricei* **sp. nov.**, holotype female, habitus: **1**) Dorsal; **2**) Ventral; **3**) Lateral. **4–6.** *Eclipta nearnsi* **sp. nov.**, holotype female, habitus: **4**) Dorsal; **5**) Ventral; **6**) Lateral.



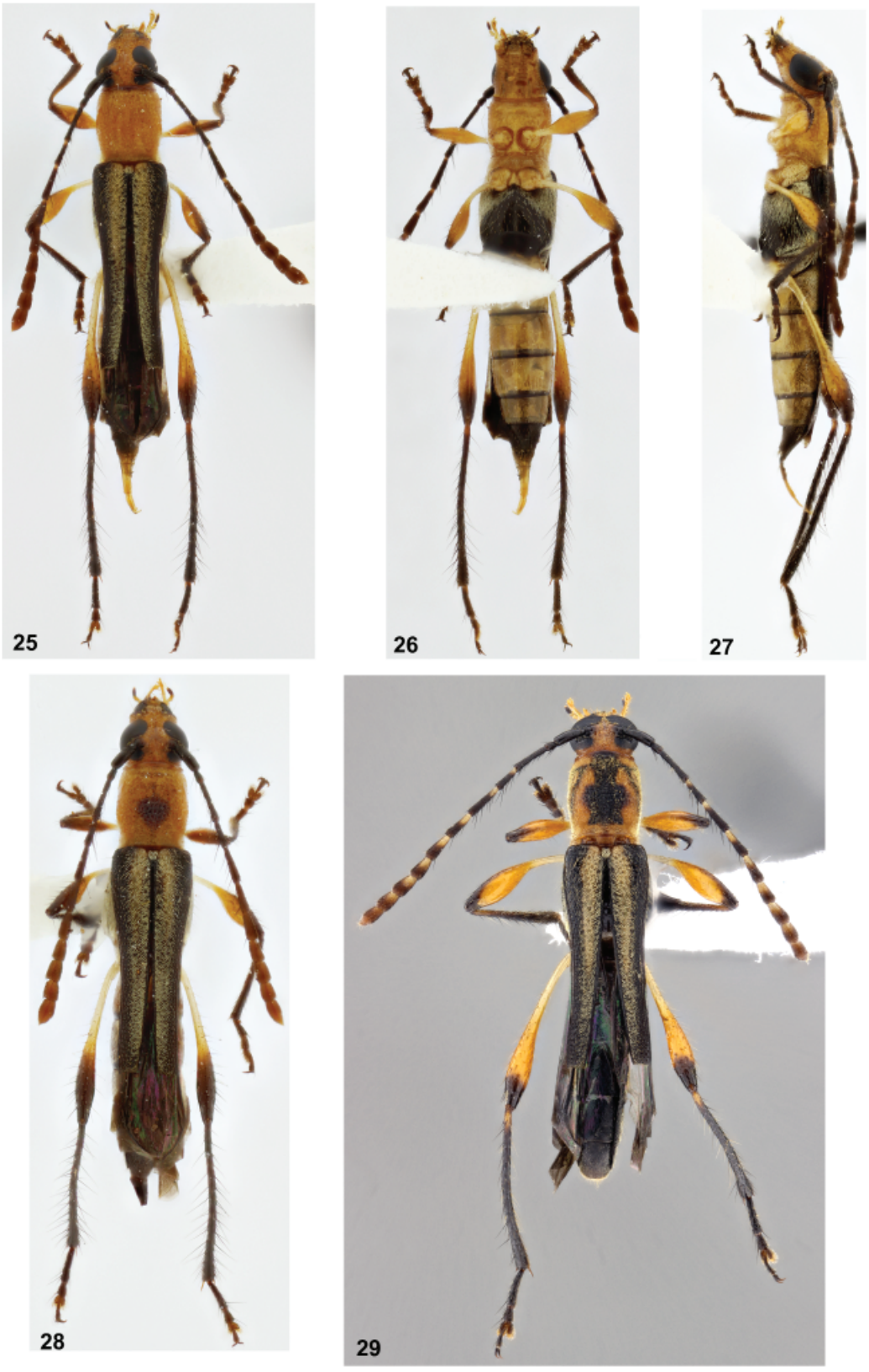
Figures 7–12. *Odontocera* spp. **7–9.** *Odontocera galileoae* **sp. nov.**, holotype male, habitus: **7**) Dorsal; **8**) Ventral; **9**) Lateral. **10–12.** *Odontocera stangei* **sp. nov.**, holotype female, habitus: **10**) Dorsal; **11**) Ventral; **12**) Lateral.



Figures 13–18. *Odontocera* spp. **13–15.** *Odontocera mthomasi* **sp. nov.**, holotype female, habitus: **13**) Dorsal; **14**) Ventral; **15**) Lateral. **16–18**. *Odontocera skelleyi* **sp. nov.**, holotype female, habitus: **16**) Dorsal; **17**) Ventral; **18**) Lateral.



Figures 19–24. *Chariergodes* and *Ischasia.* **19–21.** *Chariergodes lingafelteri* **sp. nov.**, holotype female, habitus: **19**) Dorsal; **20**) Ventral; **21**) Lateral. **22–24.** *Ischasia martinsi* **sp. nov.**, holotype female, habitus: **22**) Dorsal; **23**) Ventral; **24**) Lateral.



Figures 25–29. *Ecliptoides vandenberghei* **sp. nov.**, Habitus: **25**) Dorsal, holotype female; **26**) Ventral, holotype female; **27**) Lateral, holotype female; **28**) Dorsal, paratype female. **29**) Dorsal, paratype male.

Figures 30–35. *Ecliptoides* and *Eclipta*. **30–34.** *Ecliptoides vandenberghei* **sp. nov.**, male paratypes: **30**) Ventral habitus, paratype; **31**) Lateral habitus, paratype; **32**) Pronotum, paratype; **33**) Side of prothorax, paratype; **34**) Side of prothorax, paratype. **35**) Dorsal habitus, *Eclipta ficta*.